



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R01-OAR-2019-0348; FRL-10000-09-Region 1]

Air Plan Approval; Connecticut; Regional Haze Five Year Progress Report

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve the Connecticut regional haze progress report submitted as a State Implementation Plan (SIP) revision on June 30, 2015. This revision addresses the provisions of the Clean Air Act and its implementing regulations that require states to submit periodic reports describing progress on reasonable progress goals established for regional haze and a determination of adequacy of the state's existing regional haze SIP. Connecticut's progress report notes that Connecticut has made substantial progress toward meeting the emissions reduction expected for the first regional planning period. The report also notes that visibility in the federal Class I areas that may be affected by emissions from Connecticut is improving. In addition, the nearby federal Class I areas have already met the applicable reasonable progress goals for 2018. The EPA is proposing approval of Connecticut's determination that the state's existing regional haze SIP requires no further substantive revision at this time in order to achieve the goals for visibility improvement and emission reductions.

DATES: Written comments must be received on or before **[Insert date 30 days after date of publication in the Federal Register]**.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R01-OAR-2019-0348 at <https://www.regulations.gov>. For comments submitted at Regulations.gov, follow the

online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. For either manner of submission, the EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the “For Further Information Contact” section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <http://www.epa.gov/dockets/commenting-epa-dockets>. Publicly available docket materials are available at <https://www.regulations.gov> or at the U.S. Environmental Protection Agency, EPA Region 1 Regional Office, Office of Air and Radiation, Air Quality Branch, 5 Post Office Square – Suite 100, Boston, MA. EPA requests that if at all possible, you contact the contact listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection. The Regional Office’s official hours of business are Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding legal holidays.

FOR FURTHER INFORMATION CONTACT: Anne K. McWilliams, Air Quality Branch, U.S. Environmental Protection Agency, EPA Region 1, 5 Post Office Square - Suite 100, (Mail code 05-2), Boston, MA 02109 - 3912, tel. (617) 918-1697, email mcwilliams.anne@epa.gov.

SUPPLEMENTARY INFORMATION:

Throughout this document whenever “we,” “us,” or “our” is used, we mean EPA.

Table of Contents

I. Background and Purpose

II. EPA's Evaluation of Connecticut's SIP Revision

A. Regional Haze Progress Report

B. Determination of Adequacy of Existing Regional Haze Plan

III. Proposed Action

IV. Statutory and Executive Order Reviews

I. Background and Purpose

States are required to submit a progress report in the form of a SIP revision that evaluates progress towards the reasonable progress goals (RPGs) for each mandatory Class I federal area¹ (Class I area) within the state and each Class I area outside the state which may be affected by emissions from within the state [40 CFR 51.308(g)]. In addition, the provisions of 40 CFR 51.308(h) require states to submit, at the same time as the 40 CFR 51.308(g) progress report, a determination of adequacy of the state's existing regional haze SIP. The progress report SIP for the first planning period is due five years after submittal of the initial regional haze SIP. On November 19, 2009, Connecticut submitted the state's first regional haze SIP in accordance with 40 CFR 51.308.² On June 30, 2015, Connecticut submitted, as a revision to its SIP, a progress report which details the progress made in the first planning period toward the implementation of the Long Term Strategy (LTS) outlined in the 2009 regional haze submittal, the visibility improvement measured at Class I areas that may be affected by emissions from Connecticut, and a determination of the adequacy of the state's existing regional haze SIP. The EPA is proposing to approve Connecticut's June 30, 2015 submittal.

II. EPA's Evaluation of Connecticut's SIP Revision

¹ Areas designated as mandatory Class I federal areas consist of national parks exceeding 6,000 acres, wilderness areas and national memorial parks exceeding 5,000 acres, and all international parks that were in existence on August 7, 1977 (42 U.S.C. 7472(a)). Listed at 40 CFR part 81, subpart D.

² On April 26, 2013, EPA approved the Connecticut regional haze SIP submittal. See 79 FR 39322, July 10, 2014.

Connecticut submitted a SIP revision that contained a report on progress made in the first implementation period toward reasonable progress goals for all Class I areas that may be affected by emissions from sources in the state (also known as a regional haze five-year progress report). This progress report SIP submittal also included a determination that the state's existing regional haze SIP requires no further substantive revisions at this time in order to achieve the established goals for visibility improvement and emissions reductions for 2018. Connecticut is a member of the Mid-Atlantic/Northeast Visibility Union (MANE-VU).³ The MANE-VU area contains seven Class I areas in four states: Moosehorn Wilderness Area, Acadia National Park, and Roosevelt Campobello International Park in Maine; Presidential Range/Dry River Wilderness Area and Great Gulf Wilderness Area in New Hampshire; Brigantine Wilderness Area in New Jersey; and Lye Brook Wilderness Area in Vermont. There are no Class I areas in Connecticut. Through source apportionment modeling, MANE-VU assisted states in determining their contribution to the visibility impairment of each Class I area in the MANE-VU region and nearby Class I areas outside of MANE-VU.

However, as a member of MANE-VU, Connecticut agreed to reduce emissions by at least the amount obtained by the measures in the coordinated course of action established by MANE-VU. These strategies, designed to assure reasonable progress toward preventing any future, and remedying any existing anthropogenic visibility in the mandatory Class I areas within the MANE-VU region, are commonly referred to as the MANE-VU "ask." This request (or "ask") includes: a timely implementation of the best available retrofit technology (BART) requirements, 90 percent or more reduction in sulfur dioxide (SO₂) at 167 electrical generating units (EGUs or

³ MANE-VU is a collaborative effort of the state governments, Tribal governments, and various federal agencies established to initiate and coordinate activities associated with the management of regional haze, visibility and other air quality issues in the Northeastern United States. Member state and tribal governments include: Connecticut, Delaware, the District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Penobscot Indian Nation, Rhode Island, St. Regis Mohawk Tribe and Vermont.

“units”) identified by MANE-VU (or comparable alternative measures),⁴ lower sulfur fuels requirement (with limits specified for each state) and continued evaluation of other control measures.⁵ In brief, Connecticut is on track to fulfill the MANE-VU “ask” by implementing the lower sulfur fuels strategy and adopting and implementing an alternative to BART.

A. Regional Haze Progress Report

This section includes the EPA’s analysis of Connecticut’s progress report SIP submittal and an explanation of the basis of the proposed approval.

The 2009 Connecticut regional haze SIP included these key measures: (1) the adoption of low sulfur fuels requirements for residual and distillate oil for heating and off-road diesel, and (2) an EGU alternative to BART. EPA’s analysis of the Connecticut regional haze SIP for the first planning period can be found at 78 FR 5158 (January 24, 2013). Connecticut’s low sulfur fuels requirements may be found in the Regulations of Connecticut State Agencies (RCSA) sections 22a-174-19, 22a-174-19a and 22a-174-19b and Connecticut General Statute (CGS) section 16a-21a.⁶

Rather than implementing BART, Connecticut chose to implement an alternative to BART that was determined to achieve greater progress toward natural visibility conditions than BART. The Connecticut alternative to BART applies not only to the original seven BART units, but also to an additional 66 units in the state. *See* 77 FR 17373 (March 26, 2012). Since the 2009 SIP submittal, 15 units have been added to the alternative to BART program and six units have retired. However, the 73 alternative to BART units only emitted a total of 1,491 tons of SO₂ in

⁴ Connecticut was not found to have any of the MANE-VU identified 167 EGU stacks.

⁵ The MANE-VU “ask” was structured around the finding that SO₂ emissions were the dominate visibility impairing pollutant at Northeastern Class I areas and electrical generating units comprised the largest SO₂ emission sector. *See* Northeast States for Coordinated Air Use Management (NESCAUM), “Regional Haze and Visibility in the Northeast and Mid-Atlantic States” (January 31, 2001), *available at* <https://www.nescaum.org/documents/regional-haze-and-visibility-in-the-northeast-and-mid-atlantic-states/#>.

⁶ *See* 81 FR 33134 (May 25, 2016), 79 FR 39322 (July 10, 2014), and 81 FR 35626 (July 3, 2016).

2014, which is 11.5% of the 13,005 tons of SO₂ from the original 53 units identified as subject to BART in 2002.⁷ Similarly, for nitrogen oxides (NO_x), the alternative to BART program has achieved a 3,947 ton, or 66%, reduction in NO_x emissions between 2002 and 2014.

The Connecticut alternative to BART for NO_x relies in large part on non-ozone season NO_x limits and Reasonable Available Control Technology (RACT) determinations. At the time of EPA's rulemaking on the Connecticut regional haze SIP, the Clean Air Interstate Rule (CAIR) was still in effect, and the state's NO_x BART alternative relied, in part, on the ozone season CAIR. CAIR represented a small part of Connecticut's BART alternative, and Connecticut's actual ozone season NO_x emissions from the BART alternative sources are currently below the levels contemplated by CAIR. Additional discussion can be found in the preamble to the EPA's final approval of the Connecticut's regional haze plan. *See* 79 FR 39322 (July 10, 2014).

In August 2011, the federal CAIR program was replaced by the federal Cross State Air Pollution Rule (CSAPR). 76 FR 48208 (August 8, 2011). CSAPR did not include Connecticut in its ozone season program because EPA analyses showed that the state does not emit ozone-season NO_x at a level that contributes significantly to non-attainment, or interferes with maintenance, of the 1997 ozone National Ambient Air Quality Standards (NAAQS) in any other state. EPA made the same finding when it promulgated the CSAPR Update for the 2008 ozone NAAQS. 81 FR 74504 (October 26, 2016).

While EPA is no longer implementing the ozone-season CAIR, Connecticut's 2014 total annual NO_x emissions from the alternative to BART sources were 1,954 tons, substantially less than the previous CAIR ozone-season cap of 2,691 tons NO_x. It should be noted that Connecticut's alternative to BART sources are still subject to non-ozone season NO_x limits and RACT determinations.

⁷ The SO₂ alternative to BART strategy reduces the sulfur in fuel oil requirements for subject sources from 0.5% sulfur residual oil to 0.3% sulfur residual oil. *See* 77 FR 17373 (March 26, 2012).

EPA is proposing approval of Connecticut's determination that the existing implementation plan requires no further substantive revision at this time in order to achieve the goals for visibility improvement and emissions reductions. While Connecticut does not contribute to visibility impairment in any Class I area, Connecticut is making progress toward attaining the state's estimated LTS emission reductions.

During the development of the regional haze SIP for the first planning period, MANE-VU and Connecticut determined that SO₂ was the greatest contributor to anthropogenic visibility impairment at nearby Class I areas. Therefore, the bulk of the visibility improvement achieved in the first planning period was expected to be from the reductions of SO₂ emissions. Table 4.1 of the 2015 progress report presents data from statewide Connecticut emission inventories developed for the years 2002, 2008, 2011 and projected inventories for 2018 for SO₂, NO_x, volatile organic compounds (VOCs),⁸ and fine particulates with a diameter less than 2.5 micrometers (PM_{2.5}). From 2002 to 2011, the state achieved an overall 60% reduction in SO₂ emissions from 38,534 tons per year to 15,333 tons per year. Area sources⁹ comprise the largest portion of the Connecticut SO₂ inventory (18,454 tons SO₂ in 2002). While SO₂ emission reductions achieved by 2011 do not meet the projection for 2018, once lower sulfur home heating oil is fully implemented, we expect additional SO₂ reductions from the area source sector.

For NO_x, total emissions were reduced from 115,213 tons NO_x per year to 72,828 tons NO_x per year¹⁰ from 2002 to 2011. For the point source¹¹ sector, from 2002 to 2011, NO_x emissions

⁸ VOCs were not found to contribute substantially to visibility impairment in the East.

⁹ An area source means any small residential, governmental, institutional, commercial, or industrial fuel combustion operations; onsite solid waste disposal facility; motor vehicles, aircraft vessels, or other transportation facilities or other miscellaneous sources identified through inventory techniques similar to those described in the "AEROS Manual series, Vol. II AEROS User's Manual," EPA-450/2-76-029 December 1976. *See* 40 CFR 51.100(l)

¹⁰ The on-road sector is the dominate source of NO_x emissions. In 2011, the on-road sector accounted for 36,659 tons NO_x emissions.

were reduced from 12,868 tons per year to 6,403 tons per year, meeting the 2018 projection of 10,919 tons per year. While overall NO_x reductions achieved by 2011 do not meet the estimate for 2018, additional reduction is expected to result from motor vehicle fleet turnover between 2011 and 2018.

Finally, from 2002 to 2011, point source PM_{2.5} emissions were reduced from 17,363 tons per year to 16,545 tons per year. While PM_{2.5} emissions from area sources increased slightly during this period, additional reductions are expected with the implementation of lower sulfur in fuel oil.

EPA finds that Connecticut has adequately addressed the applicable provisions under 40 CFR 51.308(g). Connecticut compared the most recently updated emission inventory data available at the time of the development of the progress report with baseline emissions inventory data from its regional haze SIP. The progress report adequately details the 2011 SO₂, NO_x, and PM_{2.5} reductions achieved by sector thus far in the regional haze planning period.

The provisions under 40 CFR 51.308(g) also require states with Class I areas within their borders to provide information on current visibility conditions and on the difference between current visibility conditions and baseline visibility conditions expressed in terms of five-year averages of these annual values. Connecticut has no Class I areas, but the Class I areas that may be affected by emissions from Connecticut have visibility conditions better than baseline conditions and conditions predicted for 2018. The Interagency Visual Environmental monitoring program (IMPROVE)¹² provides data on the air pollutants that constitute regional haze. Tables 1 and 2 below show the progress from the five-year average visibility of the 2000 to 2004 baseline

¹¹ A point source is any stationary source in which the actual emissions are in excess of 100 tons per year of a pollutant in a region containing an area whose 1980 urban place population was greater than one million or any stationary source with actual emissions in excess of 25 tons per year in an area with a 1980 urban place population less than one million. See 40 CFR 51.100(k).

¹² <http://vista.cira.colostate.edu/improve/>

period through the most recent 2009 to 2013 five-year period for the 20% haziest days and 20% clearest days. Connecticut concludes that all the included Class I areas are on track to meet the 2018 reasonable progress goals.

EPA notes the substantial improvement in visibility at the MANE-VU Class I areas. These Class I areas have already met the reasonable progress goals for the first regional haze planning period.

In its progress report SIP, Connecticut concludes the elements and strategies relied on in its original regional haze SIP are adequate to enable neighboring states to meet all established RPGs.

Table 1 - 20% Haziest Days Baseline, Reasonable Progress Goals, and Observed Visibility in deciviews (dv).

Class I Area IMPROVE* Site	Baseline (2000 – 2004)	Reasonable Progress Goal (2018)	5-Year Average Observed (2009 - 2013)	Met the 2018 progress goal?
Acadia National Park (ME)	22.9	19.4	17.93	Yes
Brigantine Wilderness (NJ)	29.01	25.1	23.75	Yes
Great Gulf Wilderness (NH)	22.8	19.1	16.66	Yes
Presidential Range-Dry River Wilderness (NH)				
Lye Brook Wilderness (VT)	24.4	20.9	18.78	Yes
Moosehorn Wilderness (ME)	21.7	19.0	16.83	Yes
Roosevelt Campobello International Park (ME)				

Table 2 - 20% Cleanest Days Baseline, Reasonable Progress Goals, and Observed Visibility in deciviews (dv).

Class I Area IMPROVE* Site	Baseline (2000 – 2004)	Reasonable Progress Goal (2018)	5-Year Average Observed (2009 - 2013)	Met the 2018 progress goal?
Acadia National Park (ME)	8.78	8.3	7.02	Yes
Brigantine Wilderness (NJ)	14.33	14.3	12.25	Yes
Great Gulf Wilderness (NH)	7.7	7.2	5.86	Yes
Presidential Range-Dry River Wilderness (NH)				
Lye Brook Wilderness (VT)	6.4	5.5	4.9	Yes
Moosehorn Wilderness (ME)	9.2	8.6	6.7	Yes
Roosevelt Campobello International Park (ME)				

*Data from NESCAUM, *Tracking Visibility Progress 2004-2011* (April 30, 2013, rev. May 24, 2014), available at <http://www.nescaum.org/documents/manevu-trends-2004-2011-report-final-20130430.pdf/>.

EPA proposes to conclude that Connecticut has adequately addressed the provisions of 40 CFR 51.308(g). The progress report compared the most recent updated emission inventory data available at the time of the development of the progress report with the baseline emissions used in the modeling for the regional haze SIP. In its progress report, Connecticut described improving visibility trends using data from the IMPROVE network and the downward emission trend of key pollutants in the state.

Connecticut does not have any Class I areas and is not required to monitor for visibility-impairing pollutants. The Connecticut visibility monitoring strategy relies upon Class I area participation in the IMPROVE network. EPA proposes to find that Connecticut has adequately addressed the requirements for a monitoring strategy for regional haze purposes to determine no further modifications to the monitoring program are necessary.

B. Determination of Adequacy of Existing Regional Haze Plan

In its progress report, Connecticut submitted a negative declaration to EPA regarding the need for additional actions or emission reductions in Connecticut beyond those already in place and those to be implemented by 2018 as detailed in the state's regional haze plan.

In the 2015 progress report submittal, Connecticut determined that the existing regional haze SIP needs no further substantive revision at this time to achieve the emission reductions expected for the first planning period. Emission reduction trends are on track to meet Connecticut's estimated 2018 emissions. Connecticut is implementing non-ozone season NO_x limits, revised RACT, and low sulfur fuel requirements. The state continues to evaluate additional NO_x control strategies; however, the 2011 total alternative to BART annual NO_x emission of 1,602 tons was well below the now defunct CAIR ozone season cap of 2,691 tons NO_x.

EPA proposes to conclude that Connecticut has adequately addressed the provisions under 40 CFR 51.308(h) because visibility trends at nearby Class I areas and Connecticut emission trends are on track to meet the goals for the first regional haze planning period. Therefore, no substantive revisions to the SIP are needed at this time to ensure that Connecticut meets its share of visibility improvement included in the downwind states' reasonable progress goals.

III. Proposed Action

EPA is proposing to approve Connecticut's June 30, 2015 determination that the existing implementation plan requires no further substantive revision at this time in order to achieve established goals for visibility improvement and emissions reductions. EPA is soliciting public comments on the issues discussed in this notice or on other relevant matters. These comments will be considered before taking final action. Interested parties may participate in the Federal rulemaking procedure by submitting written comments to this proposed rule by following the instructions listed in the **ADDRESSES** section of this **Federal Register**.

IV. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this proposed action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Is not expected to be an Executive Order 13771 regulatory action because this action is not significant under Executive Order 12866;
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);

- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Regional Haze, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: September 19, 2019.

Dennis Deziel,
Regional Administrator,
EPA Region 1.

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